



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,845	06/28/2001	Naoya Hashimoto	Q65157	2909

7590

12/04/2002

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

PEREZ, GUILLERMO

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,845

Applicant(s)

HASHIMOTO ET AL.

Examiner

Guillermo Perez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 14.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 24, 2002 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants admitted Prior Art (APA) in view of Ryang et al. (U. S. Pat. 6,159,600).

APA substantially teaches the claimed invention except that it does not write that the means are also for preventing sulfur compounds from permeating the bobbin and the outer molding and attendantly reducing the formation of sulfur compounds on a surface of the conducting wire, thereby suppressing the reduction in adhesive strength of an electrically-insulating layer to the conductive wire, wire breakage, and short circuiting between the conducting wires. APA does not write that the preventing means

comprise the formation of the bobbin and the outer molding of an electrically-insulating material which is also resistant to permeation by sulfur compounds. APA does not disclose that the electrically-insulating material that is resistant to permeation by sulfur compounds is a thermosetting resin.

Ryang et al. disclose means for preventing sulfur compounds from permeating the bobbin and the outer molding and attendantly reducing the formation of sulfur compounds on a surface of the conducting wire, thereby suppressing the reduction in adhesive strength of an electrically-insulating layer to the conductive wire, wire breakage, and short circuiting between the conducting wires (by making the means of a thermosetting resin). Ryang et al. disclose that the preventing means comprise the formation of the bobbin and the outer molding of an electrically-insulating material resistant to permeation by sulfur compounds (by means of the thermosetting resin material means). Ryang et al. disclose that the electrically-insulating material that is resistant to permeation by sulfur compounds is a thermosetting resin. (column 23, lines 20-32). The invention of Ryang et al. has the purpose of avoiding the degradation of the materials under a high field intensity environment.

It would have been obvious at the time the invention was made to modify the electromotive device of APA and provide it with the insulating material disclosed by Ryang et al. for the purpose of avoiding the degradation of the materials under a high field intensity environment.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the insulation of thermosetting resin since it has been held

to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the machine in a transmission or other power transmitting device since the patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention. *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81.

2. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Miyao et al. (U. S. Pat. 5,691,058).

APA substantially teaches the claimed invention except that it does not show that the protective layer being composed of an electrically-insulating material resistant to permeation by sulfur compounds. APA does not disclose that the electrically-insulating material resistant to permeation by sulfur compounds is a thermosetting resin.

Miyao et al. disclose that the protective layer being composed of an electrically-insulating material resistant to permeation by sulfur compounds. Miyao et al. disclose that the electrically-insulating material resistant to permeation by sulfur compounds is a thermosetting resin (see abstract). The invention of Miyao et al. has the purpose of providing a high dielectric break down strength under large mechanical distortion.

It would have been obvious at the time the invention was made to modify the electromotive device of APA and provide it with the insulating material disclosed by

Miyao et al. for the purpose of providing a high dielectric break down strength under large mechanical distortion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the insulation of thermosetting resin since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Bolon et al. (U. S. Pat. 4,388,371).

APA substantially teaches the claimed invention except that it does not show a high-temperature solder layer coated on the copper wire, nor the protective layer being composed of an electrically-insulating material resistant to permeation by sulfur compounds. APA does not disclose that the electrically-insulating material resistant to permeation by sulfur compounds is a thermosetting resin.

Bolon et al. disclose a high-temperature solder layer coated on the copper wire, and the protective layer being composed of an electrically-insulating material resistant to permeation by sulfur compounds. Bolon et al. disclose that the electrically-insulating material resistant to permeation by sulfur compounds is a thermosetting resin (column 1, lines 51-61). The invention of Bolon et al. has the purpose of creating a hermetic application and high temperature resistance.

It would have been obvious at the time the invention was made to modify the electromotive device of APA and provide it with the solder layer and insulating material

disclosed by Bolon et al. for the purpose of creating a hermetic application and high temperature resistance.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the insulation of thermosetting resin since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

Applicant's arguments filed October 24, 2002 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Ryang teaches that it "*is desirable to provide an insulating resin with corona resistance that can lead to the manufacture of electrical motors having a longer life*" in column 1, lines 38-41. The corona effect occurs in the APA and the Ryang type of high field electrical motors, which tend to damage the insulation because of oxide erosion.

The Applicants found another advantage to the use of thermosetting resin on the coils of a dynamoelectric machine, but not a structurally different embodiment from the prior art.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to Applicant's remark that not all insulating materials are resistant to permeation by sulfur compound, it must be noted that the references of record disclose that the means to perform the stated function is a thermosetting resin, as claimed. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

In response to applicant's argument that the Applicant's solve a different problem and serves a different function from the one solved and intended in Ryang, Miyao, and Bolon, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for

patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to applicant's argument that the Applicant's solve a different problem and serves a different function from the one solved and intended in Ryang, Miyao, and Bolon, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

It should be emphasized that "apparatus claims must be structurally distinguishable from the prior art." MPEP 2114. In *re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959) it was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: "Apparatus claims cover what a device is, not what it does." (emphases in original). To emphasize the point further, the court added: "An invention need not operate differently than the prior art to be patentable, but need only be different" (emphases in original).

That is, in an apparatus claim, if a prior art structure discloses all of the structural elements in the claim, as well as their relative juxtaposition, then it reads on the claim, regardless of whether or not the function for which the prior art structure was intended is the same as that of the claimed invention.

As to the language on lines 9-13 of claim 1, lines 12-16 of claim 3, and lines 12-16 of claim 5, the applicant should note that this is merely "result" language which cannot be relied upon to define over APA in view of Ryang, since APA and Ryang discloses all of the claimed elements and their recited relationships. Moreover, the examiner will presume that the recited results are inherent in APA and Ryang since all of the claimed elements and the relationships therebetween are met by APA and Ryang. If the recited result(s) are not inherent in APA and Ryang, then this would mean that the applicant has failed to recite one or more critical feature of the present invention (i.e., a problem under U.S.C. 112, 1st Paragraph).

The Applicants are solving a problem with a known structure.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Miyao teaches that the dielectric strength of the thermosetting resin is higher than the known prior art insulation. In machines working under high voltage like APA and Miyao, the dielectric strength is critical for its proper operation and durability.

In response to Applicants remark that Bolon does not disclose a high temperature solder layer, it must be note that Bolon disclose that type of materials in column 1, lines 52-54, column 11, lines 21-23, and on claim 8.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.



Guillermo Perez
December 2, 2002